Appendix A

Special Concern Species

Table A-1 Special Status Species

Scientific Name	Common Name	Federal Status	State Status	Preferred Habitat	Disposition
Invertebrates					
Lampsilis fasciola	Wavyrayed lampmussel		T	Medium rivers with soft or rocky substrates.	Dismissed due to lack of appropriate habitat in project area.
Stagnicola contracta	Deepwater pondsnail		E	Medium to large inland lakes at depths of 33 feet (10 meters). Last observed in Leelanau County in 1949. Not known from Lake Michigan.	Dismissed due to lack of appropriate habitat in project area.
Trimerotropis huroniana	Lake Huron locust		T	Found in undisturbed, high-quality sand dunes with sparse vegetation on the shores of the Great Lakes. Often found with Pitcher's thistle.	Dismissed due to lack of appropriate habitat in project area.
Venustaconcha ellipsiformis	Ellipse		SC	Headwaters, small tributaries and medium rivers with moderate gradient and rocky substrates.	Dismissed due to lack of appropriate habitat in project area.
Fish					
Coregonus artedi	Lake herring or Cisco		T	Midwater regions of the Great Lakes. May spawn in shallow water (3 to 10 feet deep) or in pelagic zones.	Impact analysis provided in Section 4.0.
Notropis anogenus	Pugnose shiner		E	Inhabits littoral and midwater zones of clear vegetated inland lakes and vegetated pools/runs of low gradient streams and rivers. Intolerant of turbidity.	Dismissed due to lack of appropriate habitat in project area.
Amphibians					
Acris crepitans blanchardi	Blanchard's cricket frog		T	Inhabits areas of permanent water in marshes, marsh ponds, lakes, bogs, and slow-moving streams in open wetland areas. Prefers areas of low emergent vegetation to submergent vegetation. May range into surrounding non-wetland habitats.	Dismissed due to lack of appropriate habitat in project area.

Table A-1 Special Status Species

Scientific Name	Common Name	Federal Status	State Status	Preferred Habitat	Disposition
Reptiles					
Terrapene carolina carolina	Eastern box turtle		SC	Prefers forested areas with sandy soil near a source of water (pond, stream, lake, marsh, or swamp). Also found in forest-brush, fields, and marshy meadows. Requires unshaded sandy sites for nesting.	Dismissed due to lack of appropriate habitat in project area.
Birds					
Ammodramus savannarum	Grasshopper sparrow		SC	Prefers grasslands, including cultivated fields, fallow fields, and hayfields where tall grassy vegetation occurs.	Dismissed due to lack of appropriate habitat in project area.
Charadrius melodus	Piping plover	E	E	Found on wide sandy lakeshore beaches with scattered cobbles and sparse vegetation. Also found on Lake Michigan islands in areas with same characteristics. Nesting area may include interdunal wetland or small stream.	Impact analysis provided in Section 4.0.
Cygnus buccinator	Trumpeter swan		T	Marshes and wetlands associated with the Great Lakes, inland lakes, and ponds. Nests are frequently placed on muskrat houses. Reintroduced in the southern area of the park in 2006 and 2007.	Impact analysis provided in Section 4.0.
Dendroica discolor	Prairie warbler		E	Found in early successional habitats, including young pine plantations, clear-cuts in oak forest, upland scrub, fallow fields, young jack pine stands, Christmas tree farms, powerline rights-of-way, and areas of brush or thickets.	Dismissed due to lack of appropriate habitat in project area.
Falco peregrinus	Peregrine falcon		E	Nest on cliff faces and forage in open areas.	Dismissed due to lack of appropriate habitat in project area.

Table A-1 Special Status Species

Scientific Name	Common Name	Federal Status	State Status	Preferred Habitat	Disposition
Gavia immer	Common loon		T	Inland lakes and rivers. Nest where fish populations are good. Quiet sheltered coves with limited boating activity. Utilize Great Lakes in early spring until inland lakes thaw.	Impact analysis provided in Section 4.0.
Haliaeetus leucocephalus	Bald eagle		SC	Found near coastal areas, rivers, lakes, or other bodies of water with a supply of fish, waterfowl, or seabirds. Generally nest within about 13,000 feet (4 kilometers) of water in dead snags or live trees.	Impact analysis provided in Section 4.0.
Mammals					
Microtus pinetorum	Woodland vole		SC	Orchards, forested wetlands, bogs, fence rows, and forests, especially dry hardwood forests of oak, beech, and maple with sandy soils and a thick litter layer.	Dismissed due to lack of appropriate habitat in project area.
Myotis sodalis	Indiana bat	E	E	Summer roosts and forages are in riparian, bottomland, and upland forests with trees that have loose or exfoliating bark.	Dismissed due to lack of appropriate habitat in project area.
Plants					
Adlumia fungosa	Climbing fumitory		SC	Moist or freshly burned woods and rocky slopes with slightly acidic soils	Dismissed due to lack of appropriate habitat in project area.
Asplenium rhizophyllum	Walking fern		T	Found on shaded, moss-covered boulders and ledges, usually on limestone or other basic rocks, but occasionally on sandstone or other acidic rocks, rarely found on fallen tree trunks.	Dismissed due to lack of appropriate habitat in project area.
Asplenium trichomanes-ramosum	Green spleenwort		SC	Found on limestone and other basic rocks.	Dismissed due to lack of appropriate habitat in project area.

Table A-1 Special Status Species

Scientific Name	Common Name	Federal Status	State Status	Preferred Habitat	Disposition
Berula erecta	Cut-leaved water parsnip		T	Found in wet areas; springs, streams, shallows; or often found in water in valleys and plains.	Dismissed due to lack of appropriate habitat in project area.
Botrychium campestre	Prairie moonwort or Dunewort		T	Prairies, dunes, grassy railroad sidings, and fields over limestone. Extremely inconspicuous.	Dismissed due to lack of appropriate habitat in project area.
Botrychium spathulatum	Spatulate moonwort		T	On stabilized but sparsely vegetated sand dunes and grassy meadows along the shores of the upper Great Lakes – known to occur on Manitou Islands.	Dismissed due to lack of appropriate habitat in project area.
Bromus pumpellianus	Pumpelly's bromegrass		T	Sandy and gravelly stream banks and lake shores, sand dunes, meadows, dry grassy slopes, and road shoulders.	Dismissed due to lack of appropriate habitat in project area.
Calypso bulbosa	Calypso or fairy-slipper		T	Mesic to wet coniferous forests, mixed forests, and bogs.	Dismissed due to lack of appropriate habitat in project area.
Carex platyphylla	Broad-leaved sedge		E	Found in rich, moist deciduous forests, on rocky or gravelly slopes; soils above limestone, shale, or calcareous metamorphic rocks; and often on clay soils.	Dismissed due to lack of appropriate habitat in project area.
Cirsium pitcheri	Pitcher's thistle	T	T	Found only on the open sand dunes along the shores of the western Great Lakes.	Dismissed due to lack of appropriate habitat in project area.
Cypripedium arietinum	Ram's head lady's-slipper		SC	Found in dry to moist open coniferous and mixed forests, coniferous forested fens, beach thickets.	Dismissed due to lack of appropriate habitat in project area.
Galearis spectabilis	Showy orchis		T	In rich deciduous woods often near temporary spring ponds in sandy clay or rich loam soils	Dismissed due to lack of appropriate habitat in project area.
Huperzia selago	Fir clubmoss		SC	Openings in cedar swamps and other moist conifer stands, mossy, shady banks, mossy boulders, trails and old roads, logs, moist	Dismissed due to lack of appropriate habitat in project area.

Table A-1 Special Status Species

Scientific Name	Common Name	Federal Status	State Status	Preferred Habitat	Disposition
				floors of sandy borrow pits, sandy mossy lake shores.	
Linum sulcatum	Furrowed flax		SC	Disturbed areas with exposed mineral soil within oak barrens and dry prairie remnants.	Dismissed due to lack of appropriate habitat in project area.
Mimulus michiganensis	Michigan monkey flower	E	E	Occurs in sunny areas, roots in silty, sandy, alkaline mud, and grows out of a stream of cool, running water.	Dismissed due to lack of appropriate habitat in project area.
Orobanche fasciculata	Broomrape		T	Found in drier areas of foothills to rocky ridges, prairies, inland sands; in sandy soil; and as parasites on a variety of plants.	Dismissed due to lack of appropriate habitat in project area.
Panax quinquefolius	Ginseng		T	Found in cool moist woods; shade; in rich soil.	Dismissed due to lack of appropriate habitat in project area.
Pterospora andromedea	Pine-drops		T	Found in deep humus of coniferous forests.	Dismissed due to lack of appropriate habitat in project area.
Tanacetum huronense	Lake Huron tansy		T	Active dunes, old, stabilized dunes, and sandy or even substantially cobbled beaches.	Dismissed due to lack of appropriate habitat in project area.
Triphora trianthophora	Nodding pogonia		T	Found in rich, mesic woods, swamp edges, and floodplains.	Dismissed due to lack of appropriate habitat in project area.

E – Endangered
T – Threatened
SC – Special Concern

Prepared By: SPS 03-17-2011
Checked By: WJE 03-18-2011

Source: MDEQ (2011) and USFWS (2011)

Appendix B

Correspondence

United States Department of the Interior

NATIONAL PARK SERVICE
Sleeping Bear Dunes National Lakeshore
9922 Front St. (Hwy M-72)
Empire, Michigan 49630-9797

IN REPLY REFER TO:
May 27, 2011

D5215(SLBE)

Mr. Dan Wyant, Director
Michigan Department of Environmental Quality
P.O. Box 30473
Lansing, Michigan 48909-7973

RE: Request for Information, Extension of Public Access Dock on South Manitou Island, Sleeping Bear Dunes National Lakeshore

Dear Director Wyant:

Sleeping Bear Dunes National Lakeshore is located in Leelanau County, Michigan and includes North Manitou Island (NMI) and South Manitou Island (SMI) in Lake Michigan. A commercial ferry service provides public access to these islands and there are several National Park Service vessels that also access the islands each year. Unfortunately, access to the boat docks has been hindered by lake sand sedimentation which has resulted in the need for routine maintenance dredging.

Sleeping Bear Dunes National Lakeshore is proposing an L-shaped extension to the existing dock at SMI (approximate coordinates are 45.012455 N, -86.094694 W). A project vicinity map, site aerial photograph, and area of potential effect drawing are provided in the enclosed Figures 1 through 3, respectively.

This extension would allow boat access in deeper waters and would minimize or eliminate the need for future maintenance dredging at SMI. This action could potentially have a beneficial effect because it would minimize periodic disturbance of aquatic ecosystems associated with the dredging operations.

Sleeping Bear Dunes National Lakeshore, through a contract with MACTEC Engineering and Consulting, Inc., is in the process of developing National Environmental Policy Act documentation for the proposed project in the form of an Environmental Assessment. As part of the planning and evaluation process, we would welcome your input regarding issues or concerns relevant to your agency. We request that you respond in writing concerning any beneficial or adverse impacts relative to the interests of your agency.

Thank you for your attention to this matter. Your input will help us fully evaluate potential impacts to environmental resources. If you have any questions, please do not hesitate to contact Facility Manager Lee Jameson at (231) 326-5134, ext. 500.

Sincerely,

Tom Ulrich

Tom Ulrich
Acting Superintendent

2

Enclosures 3
Figure 1: Project Vicinity Map
Figure 2: Site Aerial Photograph
Figure 3: Area of Potential Effect

United States Department of the Interior

NATIONAL PARK SERVICE
Sleeping Bear Dunes National Lakeshore
9922 Front St. (Hwy M-72)
Empire, Michigan 49630-9797

IN REPLY REFER TO:
May 27, 2011

D5215(SLBE)

Chairman Derek Bailey
Grand Traverse Band of Ottawa and Chippewa Indians
2605 North West Bayshore Drive
Peshawbestown, Michigan 49682-9275

RE: Request for Information, Extension of Public Access Dock on South Manitou Island, Sleeping Bear Dunes National Lakeshore

Dear Chairman Bailey:

Sleeping Bear Dunes National Lakeshore is proposing an L-shaped extension to the existing dock at South Manitou Island (SMI). This extension would allow boat access in deeper waters and would minimize or eliminate the need for future maintenance dredging at SMI. A project vicinity map, site aerial photograph, area of potential effect drawing, and dock photographs are enclosed.

Sleeping Bear Dunes National Lakeshore, through a contract with MACTEC Engineering and Consulting, Inc., is in the process of developing National Environmental Policy Act documentation for the proposed project in the form of an Environmental Assessment. As part of the planning and evaluation process, we would welcome your input regarding issues or concerns relevant to your agency. The Michigan State Historic Preservation Office has also received a similar letter with enclosures for their review and comment.

We welcome your input, which will help us fully evaluate potential impacts to resources. If you have any questions, please do not hesitate to contact Facility Manager Lee Jameson at (231) 326-5135, ext. 500.

Sincerely,

Tom Ulrich
Acting Superintendent

Enclosures 4
Figure 1: Project Vicinity Map
Figure 2: Site Aerial Photograph
Figure 3: Area of Potential Effect
Dock Photographs

United States Department of the Interior

NATIONAL PARK SERVICE
Sleeping Bear Dunes National Lakeshore
9922 Front St. (Hwy M-72)
Empire, Michigan 49630-9797

IN REPLY REFER TO:
May 27, 2011

D5215(SLBE)

Mr. Brian D. Conway, State Historic Preservation Officer
Michigan State Historic Preservation Office
702 Kalamazoo Street
Lansing, Michigan 48909-8240

RE: Scoping Comments for Section 106 Consultation for the Extension of Public Access Dock on South Manitou Island, Sleeping Bear Dunes National Lakeshore

Dear Mr. Conway:

Sleeping Bear Dunes National Lakeshore is currently undertaking a design/build construction project for the extension of the South Manitou Island dock. A commercial ferry service provides public access to these islands each year, as do the park's boating operations. Unfortunately, access to the boat dock has been hindered by lake sand sedimentation which has resulted in the need for routine maintenance dredging. Current dredging operations have become ineffectual as sand deposits have built up and lake levels lowered.

Sleeping Bear Dunes National Lakeshore is proposing an L-shaped extension to the existing dock at South Manitou Island. This extension would allow boat access in deeper waters and would minimize or eliminate the need for future maintenance dredging on the island. A project vicinity map, site aerial photograph, and area of potential effect drawing are provided in the enclosed Figures 1 through 3, respectively.

The proposed dock is an extension of the existing dock which was constructed in 1983. At that time, the U.S. Coast Guard dock was rebuilt and an extension added. This project will be an extension to the dock constructed in 1983 and will be constructed of the same materials matching the same profile. Photos are also enclosed of the rebuilt U.S. Coast Guard dock and 1983 dock extension.

The dock is located adjacent to the South Manitou Island Lighthouse and U.S. Life-Saving Service Station Historic District (83003782), listed on October 28, 1983. The U.S. Coast Guard dock was not included in this nomination or in the amended Determination of Eligibility submitted and approved by your office on November 11, 1999 as a contributing feature.

Sleeping Bear Dunes National Lakeshore is in the process of developing National Environmental Policy Act documentation for the proposed project in the form of an Environmental Assessment and hereby invites you to provide comments that could be incorporated into that document. The dock does extend into Crescent Bay, a part of the Manitou Passage State Underwater Preserve bottomlands, and your comments concerning any impacts to bottomland resources is also requested.

Pursuant to the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, we respectfully request your comments on this proposal. The Tribal Chairman of the Grand Traverse Band of Ottawa and Chippewa Indians has been forwarded a similar letter with enclosures for their review and comment.

If you have further questions concerning this proposal, please contact Facility Manager Lee Jameson at (231) 326-5135, ext. 500.

Sincerely,

Tom Ulrich
Acting Superintendent

Enclosures 4
Figure 1: Project Vicinity Map
Figure 2: Site Aerial Photograph
Figure 3: Area of Potential Effect
Dock Photographs

United States Department of the Interior

NATIONAL PARK SERVICE
Sleeping Bear Dunes National Lakeshore
9922 Front St. (Hwy M-72)
Empire, Michigan 49630-9797

IN REPLY REFER TO:

May 27, 2011

D5215(SLBE)

Mr. John Konik
U.S. Army Corps of Engineers
Detroit District
P.O. Box 1027
Detroit, Michigan 48231-1027

RE: Request for Information, Extension of Public Access Dock on South Manitou Island, Sleeping Bear Dunes National Lakeshore

Dear Mr. Konik:

Sleeping Bear Dunes National Lakeshore is located in Leelanau County, Michigan and includes North Manitou Island (NMI) and South Manitou Island (SMI) in Lake Michigan. A commercial ferry service provides public access to these islands and there are several National Park Service vessels that also access the islands each year. Unfortunately, access to the boat docks has been hindered by lake sand sedimentation which has resulted in the need for routine maintenance dredging.

Sleeping Bear Dunes National Lakeshore is proposing an L-shaped extension to the existing dock at SMI (approximate coordinates are 45.012455 N, -86.094694 W). A project vicinity map and site aerial photograph is provided in the enclosed Figures 1 and 2, respectively.

This extension would allow boat access in deeper waters and would minimize or eliminate the need for future maintenance dredging at SMI.

Sleeping Bear Dunes National Lakeshore, through a contract with MACTEC Engineering and Consulting, Inc., is in the process of developing National Environmental Policy Act documentation for the proposed project in the form of an Environmental Assessment. As part of the planning and evaluation process, we would welcome your input regarding issues or concerns relevant to your agency. We request that you respond in writing concerning any recommendations and beneficial or adverse impacts relative to the interests of your agency.

Thank you for your attention to this matter. Your input will help us fully evaluate the proposed project. If you have any questions, please do not hesitate to contact Facility Manager Lee Jameson at (231) 326-5135, ext. 500.

Sincerely,

Tom Ulrich
Acting Superintendent

Enclosures 2
Figure 1: Project Vicinity Map
Figure 2: Site Aerial Photograph

United States Department of the Interior

NATIONAL PARK SERVICE
Sleeping Bear Dunes National Lakeshore
9922 Front St. (Hwy M-72)
Empire, Michigan 49630-9797

IN REPLY REFER TO:
May 27, 2011

D5215(SLBE)

Mr. Jack Dingledine, Deputy Field Supervisor
U.S. Fish and Wildlife Service, East Lansing Field Office
2651 Coolidge Road
East Lansing, Michigan 48823

RE: Endangered Species Act Section 7 Consultation for the Extension of Public Access Dock on South Manitou Island, Sleeping Bear Dunes National Lakeshore

Dear Mr. Dingledine:

Sleeping Bear Dunes National Lakeshore is located in Leelanau County, Michigan and includes North Manitou Island (NMI) and South Manitou Island (SMI) in Lake Michigan. A commercial ferry service provides public access to these islands and there are several National Park Service vessels that also access the islands each year. Unfortunately, access to the boat docks has been hindered by lake sand sedimentation which has resulted in the need for routine maintenance dredging.

Sleeping Bear Dunes National Lakeshore is proposing an L-shaped extension to the existing dock at SMI. This extension would allow boat access in deeper waters and would minimize or eliminate the need for future maintenance dredging at SMI. This action could potentially have a beneficial effect because it would minimize periodic disturbance of aquatic ecosystems associated with the dredging operations. A project vicinity map, site aerial photograph, and area of potential effect drawing are provided in the enclosed Figures 1 through 3, respectively.

We recognize that local populations of Pitcher's thistle (*Cirsium pitcheri*), a species listed as threatened by both the U.S. Fish and Wildlife Service and the Michigan Department of Environmental Quality, are present in the vicinity of the existing dock facility. A Biological Assessment (BA) was submitted in March 2006 to assess ongoing maintenance dredging activities and its subsequent effects on Pitcher's thistle at both North Manitou and South Manitou Islands. The updated BA is enclosed for your convenience.

Sleeping Bear Dunes National Lakeshore is in the process of developing National Environmental Policy Act documentation for the proposed project in the form of an Environmental Assessment and we would welcome your input regarding issues or concerns relevant to your agency. We request that you respond in writing concerning any concerns that your agency has regarding the proposed project. Additionally, we also request a determination as to whether the aforementioned BA is sufficient for your use in arriving at a Biological Opinion for the current dock extension project at SMI.

Thank you for your attention to this matter. If you have any questions, please do not hesitate to contact Facility Manager Lee Jameson at (231) 326-5134, ext. 500.

Sincerely,

Tom Ulrich
Acting Superintendent

Enclosures 4
Figure 1: Project Vicinity Map
Figure 2: Site Aerial Photograph
Figure 3: Area of Potential Effect
Updated BA for Sleeping Bear Dunes National Lakeshore

RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

DAN WYANT
DIRECTOR

June 20, 2011

Received by
JUN 27 2011
Mailroom

Mr. Tom Ulrich
Acting Superintendent
Sleeping Bear Dunes National Lakeshore
United States Department of the Interior
National Park Service
9922 Front Street
Empire, Michigan 49630-9797

Dear Mr. Ulrich:

Thank you for your letter of May 27, 2011, to Director Dan Wyant, Department of Environmental Quality (DEQ), concerning the extension of a public access dock on South Manitou Island in the Sleeping Bear Dunes National Lakeshore. Director Wyant has referred your letter to the DEQ's Water Resources Division (WRD) for response.

The WRD is aware of the sedimentation issue with the existing dock on South Manitou Island and has issued several permits for dredging activities. The impacts from these dredging operations have been minor, since the material being removed is newly deposited with little habitat value and is added back into the system as beach nourishment disposal. The DEQ will take into consideration that the dock extension will provide public access to the island during our review of your application for permit under Part 325, Great Lakes Submerged Lands, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. In addition, if the dock extension prevents the need to conduct frequent maintenance dredging operations, the DEQ would view that favorably to avoid concerns and impacts to our fisheries resources.

Please note that in addition to submitting a construction permit application to the DEQ, a bottomlands conveyance application pursuant to Part 325 will also be required. This application will be reviewed to determine if the proposed dock extension will minimize adverse impacts to the public trust associated with Lake Michigan bottomlands and waters. There is a current bottomlands conveyance for the existing dock on South Manitou Island that authorizes the use and occupation of the subject public trust bottomlands.

If you have any further questions regarding this matter, please contact Ms. Robyn Schmidt, Cadillac District Office, WRD, at 231-876-4444; schmidtr1@michigan.gov; or DEQ, 120 West Chapin Street, Cadillac, Michigan 49601-2158; or Mr. Tom Graf, Water Management Section, WRD, at 517-335-3471; graft@michigan.gov; or DEQ, P.O. Box 30458, Lansing, Michigan 48909-7958; or you may contact me.

Sincerely,

William Creal

William Creal, Chief
Water Resources Division
517-335-4176

cc: Mr. Dan Wyant, Director, DEQ
Mr. Jim Sygo, Deputy Director, DEQ
Ms. Robyn Schmidt, DEQ
Mr. Tom Graf, DEQ

CONSTITUTION HALL • 525 WEST ALLEGAN STREET • P.O. BOX 30473 • LANSING, MICHIGAN 48909-7973
www.michigan.gov/deq • (800) 662-9278

DEPARTMENT OF THE ARMY
DETROIT DISTRICT, CORPS OF ENGINEERS
REGULATORY OFFICE
477 MICHIGAN AVENUE
DETROIT, MICHIGAN 48231-1027

REPLY TO
ATTENTION OF:

June 23, 2011

Engineering & Technical Services
Regulatory Office
File No. LRE-1983-560243-A11

Tom Ulrich
Sleeping Bear Dunes National Lakeshore
9922 Front Street
Empire, Michigan 49630

Dear Mr. Ulrich:

We received a letter from you dated May 27, 2011 regarding extending a public access dock in Lake Michigan at Sleeping Bear Dunes National Lakeshore, South Manitou Island, Michigan. We are sending you this letter to inform you that your proposed project requires authorization from the Corps of Engineers.

In Lake Michigan, as in all navigable waters of the United States including their adjacent wetlands, any construction or discharge of dredged and/or fill material must be authorized by the Department of the Army. The authority of the Corps of Engineers to regulate construction or other work in navigable waters of the United States is contained in Section 10 of the Rivers and Harbors Act (Section 10), Section 404 of the Clean Water Act (Section 404) and regulations promulgated pursuant to these acts.

Under Section 10, a Corps permit is required for any structures or work over, in, or affecting the navigable waters of the United States, such as a pier, to an elevation known as the Ordinary High Water Mark (OHWM). Once your plans have been finalized, please fill out the enclosed permit application and supply drawings of your proposed project.

If you have any questions about our program or about the enclosed permit application, please contact me at the above address, telephone 313-226-3396, or e-mail james.d.luke@usace.army.mil. Please refer to File No. LRE-1983-560243-A11 in all future communications with this office.

Sincerely,

ORIGINAL SIGNED BY

James D. Luke
Regulatory Project Manager
Permit Evaluation Western Branch

Enclosures

Copy Furnished

Lee Jameson
Grand Haven Field Office
MDEQ Cadillac Office

Appendix C

Impairment

Appendix C - Impairment

National Park Service's (NPS) *Management Policies, 2006* require analysis of potential effects to determine whether or not actions would impair park resources. The fundamental purpose of the national park system, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adversely impacting park resources and values.

However, the laws do give the NPS the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the NPS the management discretion to allow certain impacts within park, that discretion is limited by the statutory requirement that the NPS must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of these resources or values. An impact to any park resource or value may, but does not necessarily, constitute impairment, but an impact would be more likely to constitute an impairment when there is a major or severe adverse effect upon a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- key to the natural or cultural integrity of the park; or
- identified as a goal in the park's general management plan or other relevant NPS planning documents.

An impact would be less likely to constitute an impairment if it is an unavoidable result of an action necessary to pursue or restore the integrity of park resources or values and it cannot be further mitigated.

The park resources and values that are subject to the no-impairment standard include:

- the park's scenery, natural and historic objects and wildlife, and the processes and conditions that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structures, and objects; museum collections; and native plants and animals;
- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;
- the park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established.

Impairment findings are not necessary for visitor use and experience, socioeconomics, public health and safety, environmental justice, land use, and park operations, because impairment findings related back to park resources and values, and these impact areas are not generally considered park resources or values

according to the Organic Act, and cannot be impaired in the same way that an action can impair park resources and values.

Impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessioners, contractors, and others operating in the park. The NPS's threshold for considering whether there could be an impairment is based on whether an action would have major (or significant) effects. The following analysis evaluates whether or not the applicable resources carried forward in this document would be impaired by the preferred alternative.

- **Water Resources** – Under selected alternative, no additional dredging beyond the NPS conducted maintenance dredging would be needed for several years. Dredging to support access to the new dock facility would be infrequent as the greater depths at the new dock facility will not require on-going annual dredging. Consequently, in the context of the amount of nearshore habitat available in the vicinity of SMI, coupled with the infrequent, short term, localized impact associated with dredging activity, the selected alternative would result in negligible adverse effects to water resources, and would not result in impairment of this resource.

- **Aquatic Ecology** – The likely effect of the selected alternative on the aquatic ecosystem will be a short-term adverse impact due to the construction of the dock extension, followed by a long-term beneficial impact due to the reduction or elimination of maintenance dredging. Direct impacts on benthic macroinvertebrate communities will be negligible because they will occur over a small area and because nearshore communities in Lake Michigan are already of low diversity. Direct impacts on fish populations will likewise be small. Individual fish will avoid the small area during dock construction, and will return after their completion. The long-term impact of the selected alternative action will be beneficial because it will eliminate or reduce the need for maintenance dredging that would disturb the sediment and result in reduced water clarity for several subsequent days. In the long term, the impact to aquatic species would likely be beneficial, as the proposed action would eliminate or reduce future impacts associated with maintenance dredging. Consequently, this alternative would not result in impairment of this resource.

- **Cultural Landscapes and Historic Structures** – The proposed dock will not directly affect or alter any characteristics of the adjacent historic property. However, it does constitute an extension of the existing dock facility which will represent a minor alteration of the landscape. The proposed dock extension, however, will be designed and constructed in such as way as to provide a feature that is consistent in appearance and materials as the existing dock facility. No significant alteration of the historic landscape is expected. The resultant dock facility is also not considered to alter any factors included in the original evaluation of the property's eligibility for the National Register. Consequently, it is concluded that the proposed project will have no adverse effect on the subject historic property, and would not result in impairment of this resource.

- **Sensitive Species** – Several sensitive species were identified as potentially impacted by the proposed dock extension. Impacts to the lake herring (*Coregonus artedi*), piping plover (*Charadrius melodus*), trumpeter swan (*Cygnus buccinator*), common loon (*Gavia immer*), and bald eagle (*Haliaeetus leucocephalus*) have been evaluated and are discussed below.

  Lake herring is a species that is listed as threatened by the State of Michigan that generally inhabits the midwater regions of the Great Lakes. Construction of the proposed dock extension would take place in shallow water near the shore, not in the midwater regions of Lake Michigan that lake herring prefer. Furthermore, construction would not occur during the late November or early December spawning season due to the potential for winter weather interference. As such,

any potential impacts are considered minor and would be of short duration, and would not result in impairment of this resource.

Piping plover is a species listed as endangered by both the U.S. Fish and Wildlife Service (USFWS) and the State of Michigan that breeds along the shores of the Great Lakes where they prefer wide, sandy, open beaches. The USFWS has designated critical habitat for the piping plover along certain shorelines within National Lakeshore but there is no critical habitat designated on SMI (USFWS, 2001). Construction of the proposed dock extension would occur by barge from the water thereby avoiding direct impacts to piping plover and their habitat. Although construction noise may result in some minor disruption, impacts are considered short term. Existing habitat in the project vicinity is less favorable due to the on-going noise and general disruption of boat operations and tourism. As such, potential impacts resulting from construction of the proposed dock extension are considered minor and project implementation is not likely to adversely affect piping plover or their habitat. Consequently, the selected alternative would not result in impairment of this resource.

Trumpeter swan is listed as threatened by the State of Michigan and uses marshes and wetlands associated with the Great Lakes. The species was reintroduced to the southern mainland portion of National Lakeshore in 2006 and 2007 (NPS, 2008). Although they have the potential to utilize the harbor on SMI, the habitat in the project area is less favorable (lacks marsh/wetland components) and ongoing boat traffic provides a constant source of disruption. As such, any potential impacts from the proposed dock extension are considered minor and would be of short duration, and would not result in impairment of this resource.

Common loon is a species listed as threatened by the State of Michigan that prefers lakes with a small island or bog mats and little or no high-speed boat traffic. Common loons are also known to utilize littoral, midwater, and benthic portions of the Great Lakes. Although they have the potential to utilize the harbor on SMI, the habitat here is less favorable because routine and ongoing boat traffic provides a constant source of disruption and is not conducive to loon use. Therefore, potential impacts associated with the preferred alternative are considered negligible or minor and would be of short duration, and would not result in impairment of this resource.

Bald eagle is a species listed as threatened by the State of Michigan that tends to feed, roost, and nest in large trees or snags near water bodies and have been documented from SMI. Favorable habitat is abundant in more remote areas of SMI where boat traffic and general human disturbance is lacking or less prevalent. Although construction noise may result in some minor disruption, impacts are considered short term. As such, any potential impacts from either the selected alternative are considered minor and would be of short duration, and would not result in impairment of this resource.

In addition, mitigation measures for these resources, as described in the Alternatives chapter, would further lessen the degree of impact to and help promote the protection of these resources.

In conclusion, as guided by this analysis, good science and scholarship, advice from subject matter experts and others who have relevant knowledge and experience, and the results of public involvement activities, it is the Superintendent's professional judgment that there would be no impairment of park resources and values from implementation of the preferred alternative.